

Vaspin Protein, Human (GST)

Cat. No.:	HY-P71299
Synonyms:	Serpin A12; OL-64; Visceral Adipose Tissue-Derived Serine Protease Inhibitor; Vaspin; Visceral Adipose-Specific Serpin; SERPINA12
Species:	Human
Source:	E. coli
Accession:	Q8IW75 (L21-K414)
Gene ID:	145264
Molecular Weight:	Approximately 72.0 kDa

PROPERTIES

AA Sequence	L K P S F S P R N Y K A L S E V Q G W K Q R M A A K E L A R Q N M D L G F K L L K K L A F Y N P G R N I F L S P L S I S T A F S M L C L G A Q D S T L D E I K Q G F N F R K M P E K D L H E G F H Y I I H E L T Q K T Q D L K L S I G N T L F I D Q R L Q P Q R K F L E D A K N F Y S A E T I L T N F Q N L E M A Q K Q I N D F I S Q K T H G K I N N L I E N I D P G T V M L L A N Y I F F R A R W K H E F D P N V T K E E D F F L E K N S S V K V P M M F R S G I Y Q V G Y D D K L S C T I L E I P Y Q K N I T A I F I L P D E G K L K H L E K G L Q V D T F S R W K T L L S R R V V D V S V P R L H M T G T F D L K K T L S Y I G V S K I F E E H G D L T K I A P H R S L K V G E A V H K A E L K M D E R G T E G A A G T G A Q T L P M E T P L V V K I D K P Y L L L I Y S E K I P S V L F L G K I V N P I G K
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 50 mM Tris-HCl, 160 mM NaCl, 0.2 mM PMSF, 1 mM DTT, 10% Glycerine, pH 7.2 .
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	Chemerin/RARRES2, an adipocyte-secreted protein (adipokine), orchestrates a multifaceted impact on adipogenesis, metabolism, and inflammation by activating the chemokine-like receptor 1 (CMKLR1) and also serving as a ligand for CMKLR2. While it can bind to C-C chemokine receptor-like 2 (CCRL2) with lower affinity, its primary role involves positively
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regulating adipocyte differentiation and influencing the expression of genes associated with lipid and glucose metabolism. Furthermore, Chemerin/RARRES2 plays a pivotal role in angiogenesis, essential for white adipose tissue expansion. As a pro-inflammatory adipokine, it amplifies the secretion of pro-inflammatory and prodiabetic adipokines, contributing to impaired metabolic function and systemic effects such as altered insulin sensitivity, disrupted glucose and lipid metabolism, and compromised vascular function in various tissues. Its enzymatic cleavage by different proteases can confer both pro- and anti-inflammatory properties. Acting as a chemotactic factor, it attracts leukocyte populations expressing CMKLR1, including plasmacytoid dendritic cells, myeloid dendritic cells, macrophages, and natural killer cells. Chemerin/RARRES2 also exhibits an anti-inflammatory role by inhibiting TNF/TNFA-induced VCAM1 expression and monocyte adhesion in vascular endothelial cells. This effect is mediated through the inhibition of NF-kappa-B and CRK/p38 activation, involving stimulation of AKT1/NOS3 signaling and nitric oxide production. This dual role in inflammation and metabolism suggests a potential link between chronic inflammation and obesity-related disorders, such as type 2 diabetes and cardiovascular disease. Additionally, Chemerin/RARRES2 demonstrates antimicrobial function in the skin.

Caution: Product has not been fully validated for medical applications. For research use only.

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